


# Everything and the kitchen sink: Why do we expect so much of early childhood education?



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# Agenda



The  
problem  
and premise  
of ECE



The  
promise  
of ECE



The  
broken  
promise



The  
long-term  
expectations



Need for  
continued  
investments



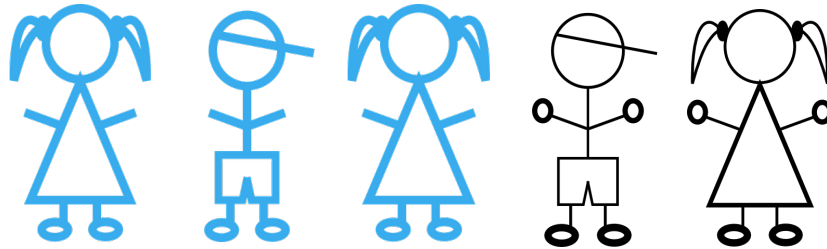
How do we improve educational experiences to support development in the long-term, especially children from marginalized communities?

# The problem

Too many children are struggling as they enter school

**3** in **5**

are not ready for  
kindergarten



**60%**

are unprepared in  
critical areas

literacy

social skills

math

physical/motor

**22** month gap

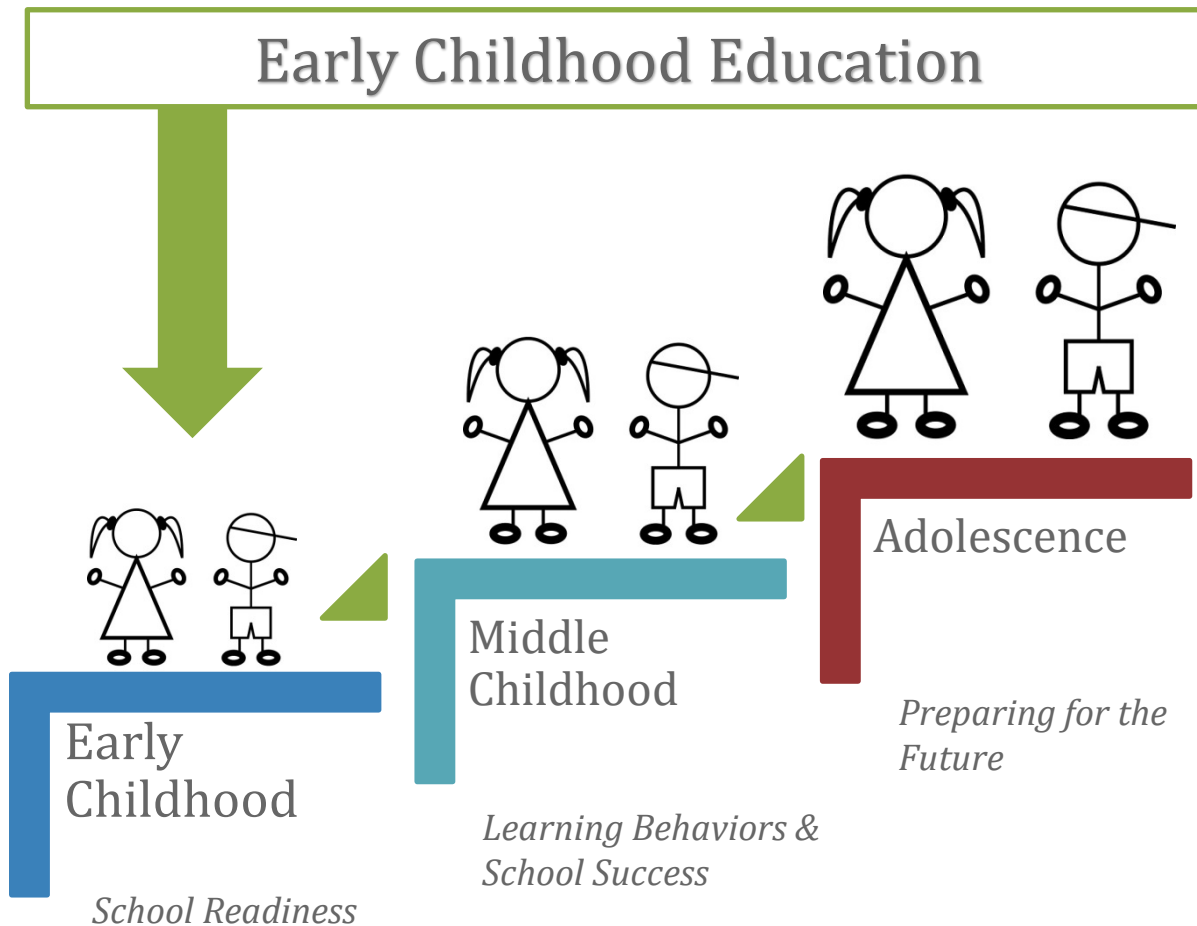
Source: Future Ready Columbus and Waldfogel and Washbrook (2010)

# The premise of early childhood education

Every child has access to a highly effective early childhood education program before they enter kindergarten

- Essential elements: Effective curriculum; high-quality teacher-child interactions; a focus on abstract skills; trained workforce; and readiness assessments
- Sufficient intensity to help minimize gaps

# Expectations of early childhood education



# The promise of early childhood education

## Academic skills



## Cognitive skills



## Social skills



Under the right conditions, enrollment in early childhood education can help minimize achievement gap at kindergarten entry

Source: Phillips and colleagues (2017)



## The broken promise

Not all children are lucky enough to experience effective and high quality early educational experiences





**66% of children**

**Above 200% of the federal poverty line attended ECE**



**51% of children**

**Below 200% of the federal poverty line attended ECE**

Source: National Center for Educational Statistics

# Inequal access to programs

Children living in high poverty communities are over 2X as likely to experience ineffective instruction in ECE

Bassok & Galdo, (2016)

Only 4% of children in rural communities have access to high quality teaching across the early years of education

Vernon-Feagans and colleagues, (2018)

# Inequalities in attendance

## Chronic Absentees are not just Teenagers Ditching School

74% of preschoolers in Columbus City Schools are chronically absent

## Did you know?

Children for low-income and marginalized communities are at greatest risk of being absent from preschool

## What does this mean?

Children who are regularly absent do not reap the maximum benefit from early childhood education

# Deborah Stipek

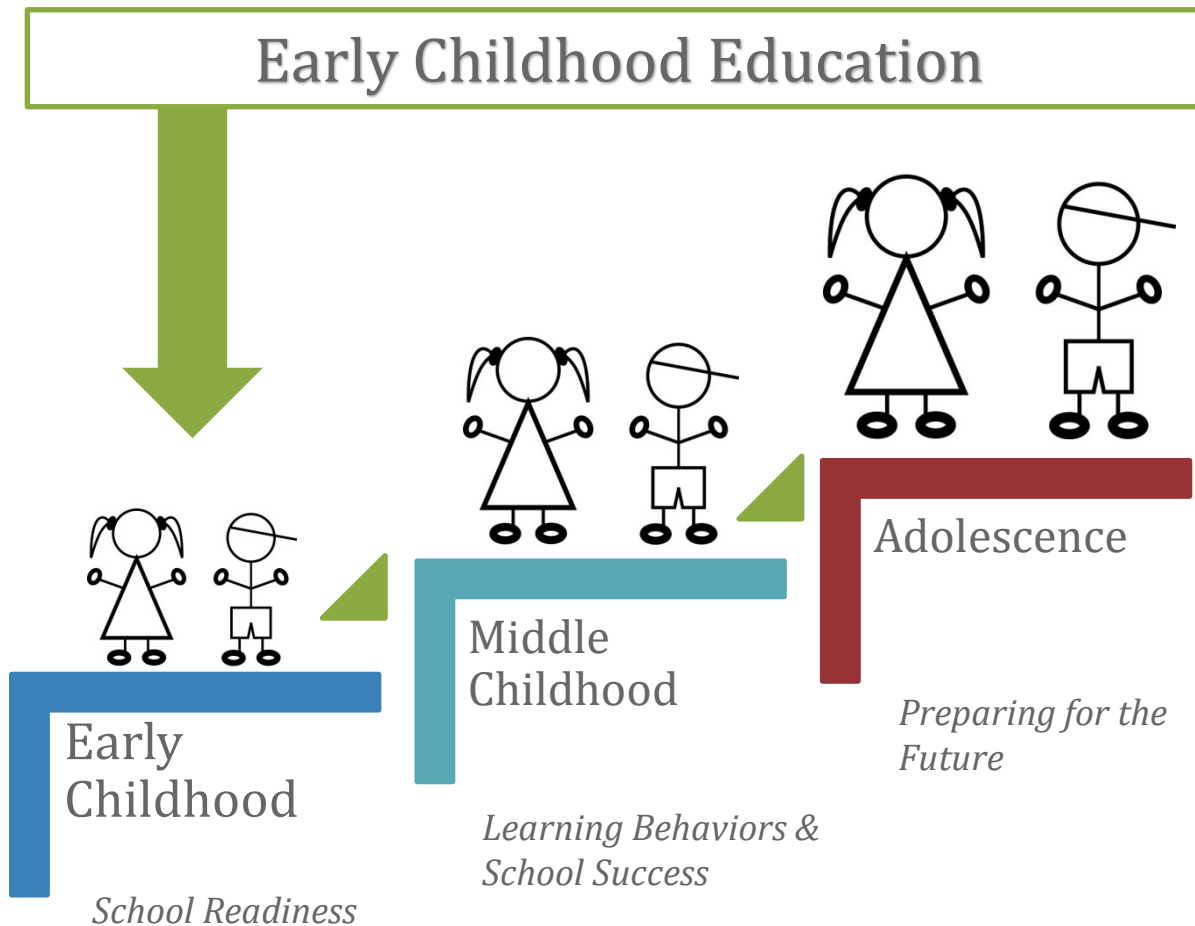


*There are many reasons to believe that [early childhood education] could have much more impact than it does. Its value as an investment should not be judged by its current impact, but by its potential.*



Boosting early  
benefits may be key

# Long-term expectations



# The long-term potential of early childhood education

**Fewer arrests**



**Greater employment**



**Greater earnings**



**\$4.10-\$6.60**

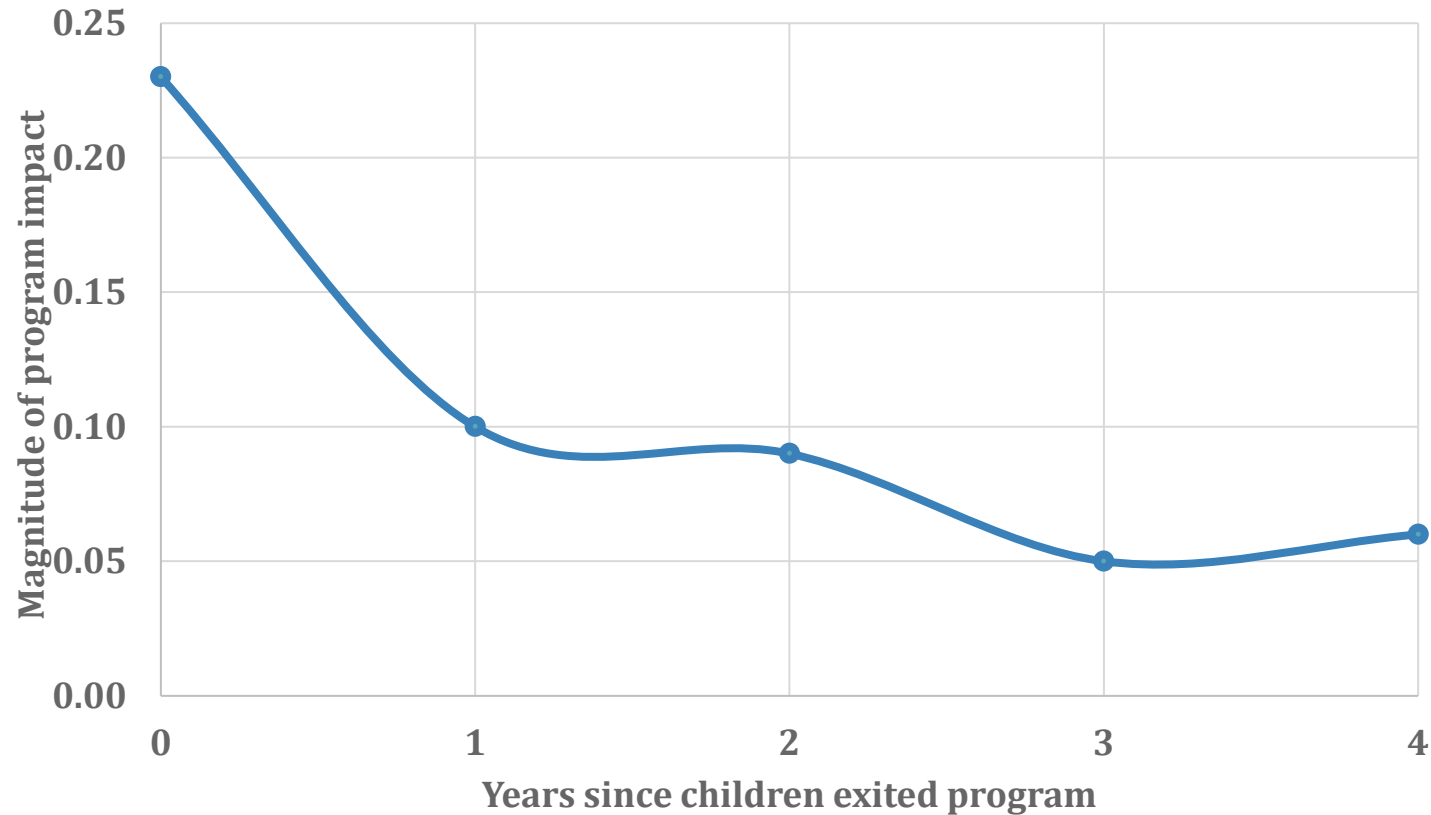
Total return per \$1.00 invested



# The bar today is higher

Than it was 50-60 years ago





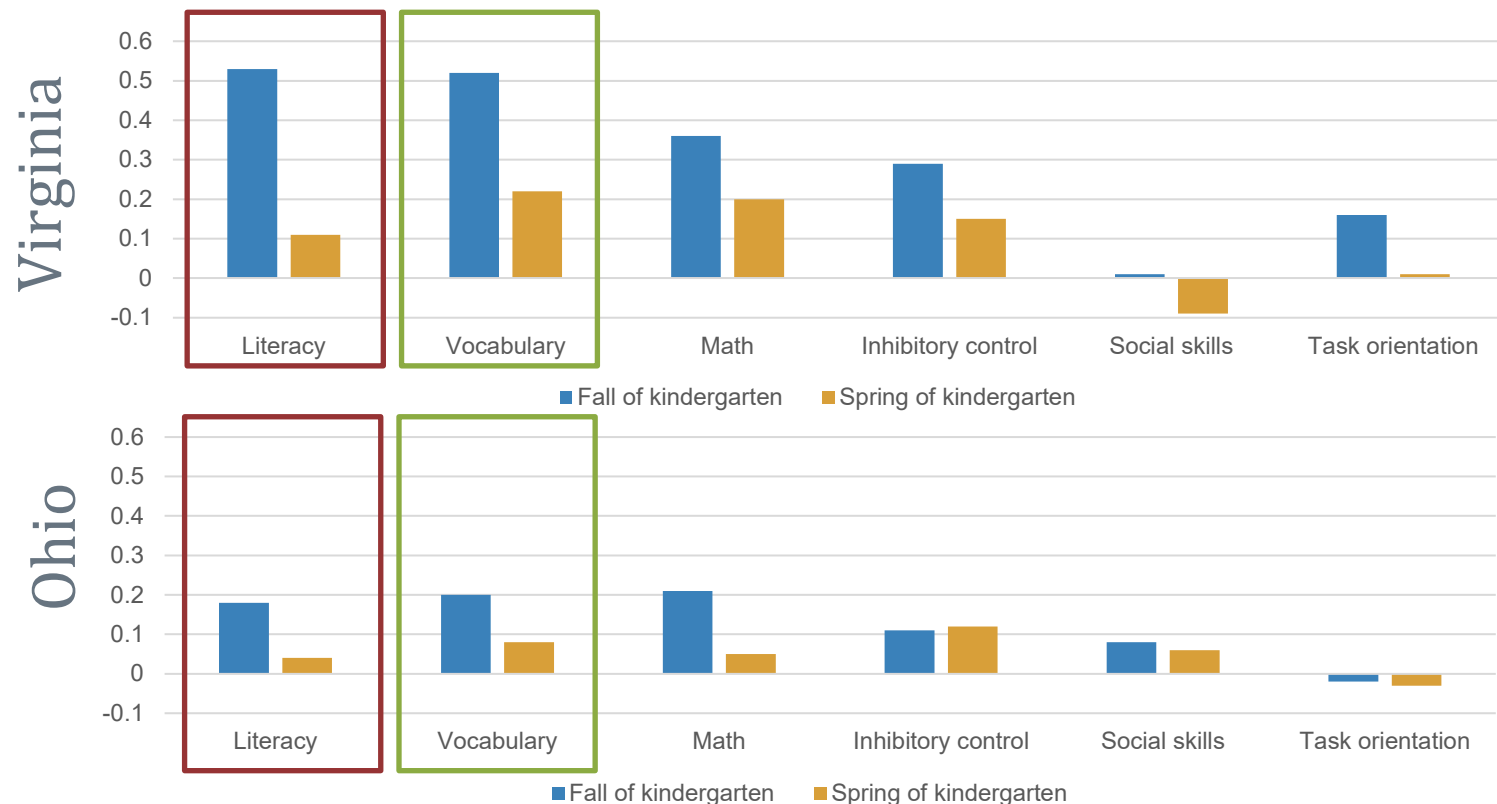
➔ **75% smaller**

Four years after program exit

Source: Phillips and colleagues (2017) and Bailey and colleagues (2018)

# Program benefits in two studies

Bars represent standardized differences between ECE attenders and non-attenders in the fall and spring of kindergarten

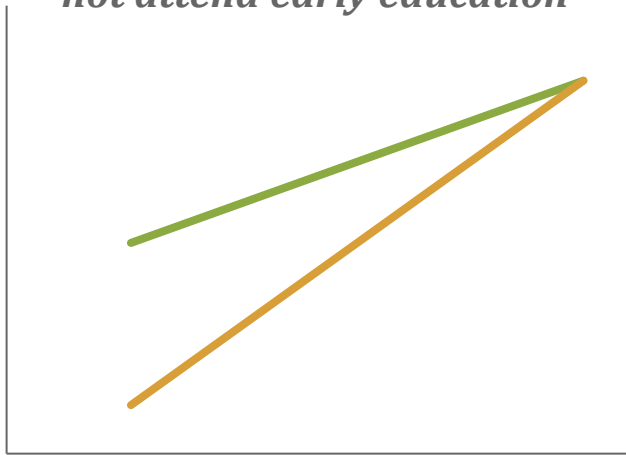


Source: Ansari and colleagues (2021), Purtell and colleagues (under review)

# Convergence in benefits

Convergence can result from either:

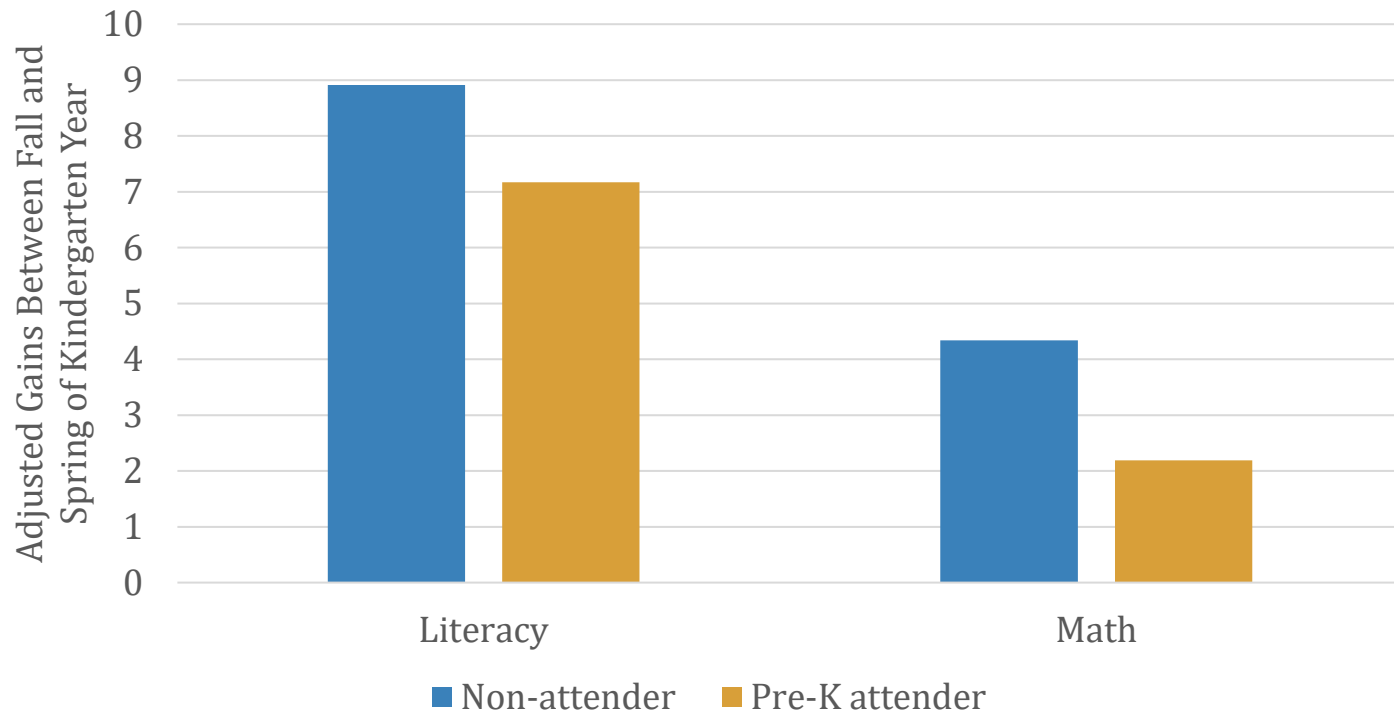
*Catchup by children who did not attend early education*



*Fadeout among early education graduates*



# Catchup or fadeout?



Convergence is due to non-attenders catching-up to their peers – **not** ECE children's skills fading out over time

Source: Ansari and colleagues (2021), Purtell and colleagues (under review)

# What may explain catch up?

Roughly **37%** of language, literacy, and math instruction in ECE and kindergarten is **redundant** – very little vertical alignment

Cohen-Vogel and colleagues (2021)

ECE often **focuses on rote skills** that kindergartners learn rapidly as opposed to more abstract skills

Burchinal and colleagues (2021)

ECE graduates receive substantially **less one-on-one time** with their kindergarten teachers relative to non-attenders

Purtell and colleagues (under review)

# What may explain catch up?

Classroom learning look  
very different in ECE than  
in kindergarten, which  
involves more teacher-led  
learning

Vitiello and colleagues (2021)

Those who experience ECE go  
on to experience less  
coordination in classroom  
and home learning

Burchinal and colleagues (2023)



# Convergence

In program benefits does not mean we should give up on early childhood education programs – we must continue to invest in these programs *and* K-12

# Jeanne Brooks-Gunn



*To expect effects [of early  
childhood education] to be  
sustained throughout childhood  
and adolescence, at their initial  
high levels, in the absence of  
continued high-quality schooling...  
is to believe in magic*



1.

Do the academic benefits of early childhood education vary as a function of subsequent school environments?

# Data

- Sample from the Early Childhood Longitudinal Study Kindergarten Cohort of 1998
  - Nationally sample of American kindergartners
  - One of the few national datasets that tracked children through the end of elementary school
  - 15,070 children (66% White; 12% Black; 12% Latino; 9% Asian/other)
  - Data from fall of kindergarten through Spring of fifth grade

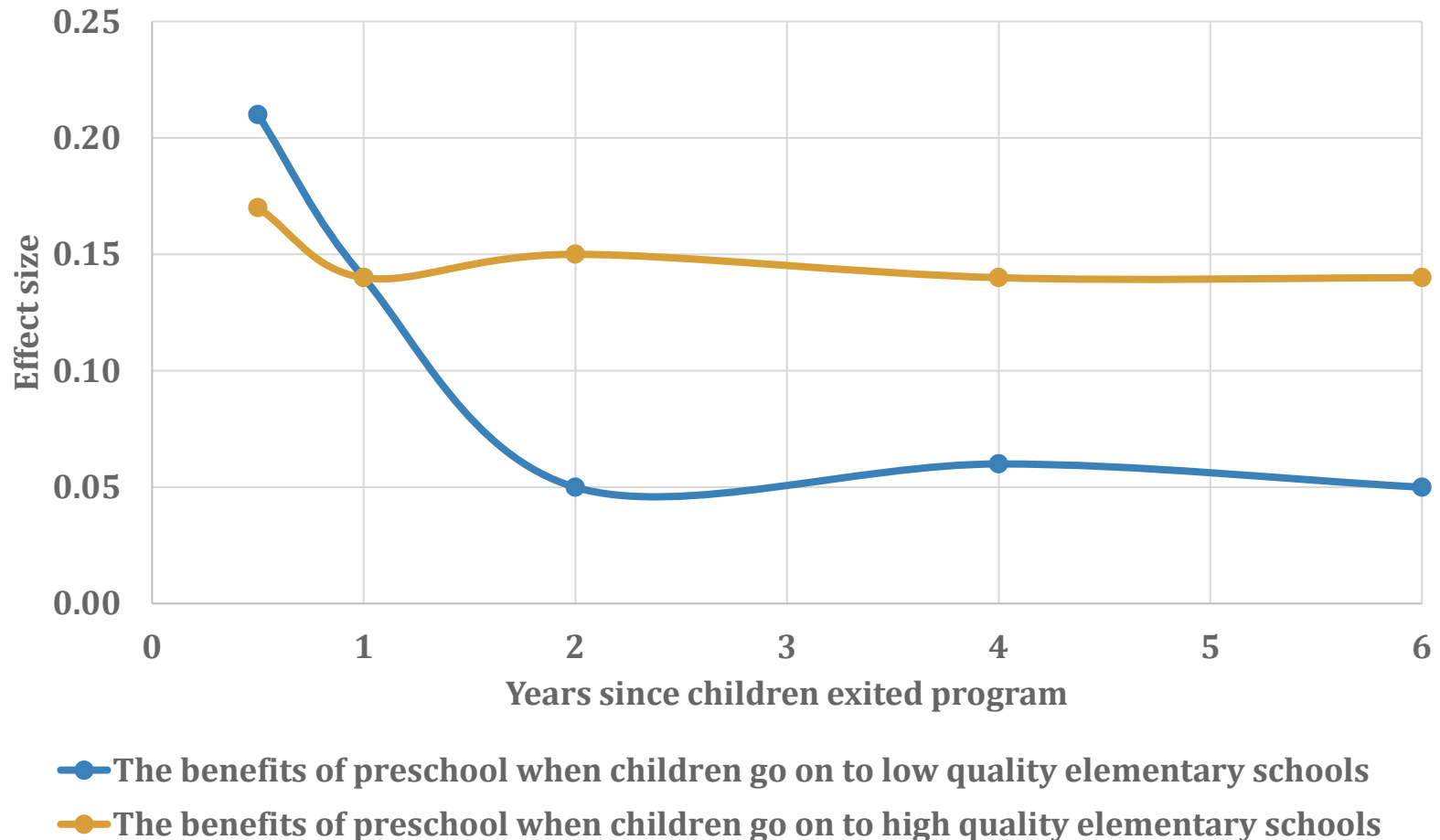
# Measures

- Early childhood education attendance
  - Parents were asked a series of questions about the type and number of hours their children attended different types of early childhood programs
- Early childhood education was defined as participation in a center or school-based program
  - All others were grouped into non-attenders

# Data and measures

- Elementary school quality
  - School strain (e.g., teacher turnover)
  - School academic performance (e.g., school performance on state assessments)
  - School instructional resources (e.g., teachers/student)
  - School climate (e.g., parental engagement)
  - School violence and crime (e.g., theft)
- Children's outcomes
  - Direct assessments of children's academic skills
- Regression with baseline covariates

# Early childhood education benefits can persist



Source: Ansari & Pianta (2018a)

# Conditional effects of early childhood education

Contemporary studies of education emphasize the role of children's interactions with their teachers as a powerful factor in shaping children's school success

Prior studies with the NICHD SECCYD reveal that the quality of teacher-child interactions in childcare predicts higher academic test scores through age 15

## 2.

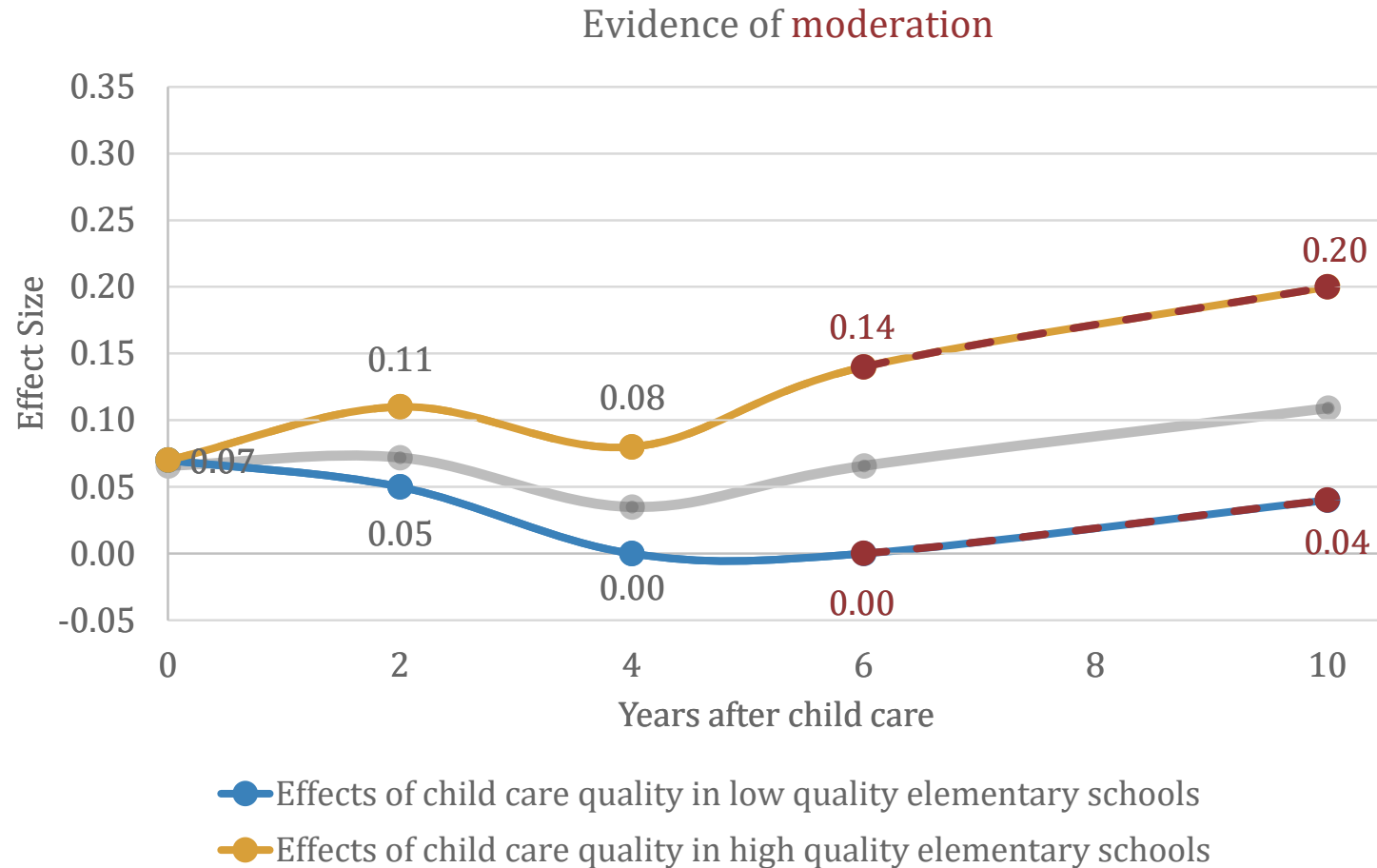
Are the long-term academic benefits children derive from high quality ECE conditioned on the quality of their classroom experiences in later years?

# Data and measures

- NICHD SECCYD ( $n = 1,307$ )
  - This study follows children from birth through age 15
- Quality (6-54 months of age)
  - Observational Record of the Caregiving Environment
- Classroom quality in 1<sup>st</sup>, 3<sup>rd</sup>, and 5<sup>th</sup> grade
  - Classroom Observation System
- Children's math and literacy skills: Woodcock Johnson
- Regression with baseline and longitudinal covariates



# Sustaining environments and the conditional effects of child care



Notes. Gray line corresponds to the average effect of child care quality

Source: Ansari & Pianta (2018b)

# Take home messages



## **There are big gaps**

Children from historically marginalized communities enter kindergarten behind.



## **ECE is effective**

It provides children with a sizable boost for kindergarten, but there is inequality in access and who shows up.



## **Cannot blame ECE**

If ECE fails to live up to its promise, then we should consider how we can make it better with a focus on the inputs



## **ECE can't do all the work**

It is unreasonable to expect that 1-2 years of ECE will inoculate children for a lifetime



## **Catch-up not fadeout**

ECE benefits diminish over time because non-attenders catch-up, not because ECE graduates' skills fadeout



## **Build on all children's skills**

To boost long-term benefits of ECE children need high quality experiences in K-12 and we must address the needs of all children

# Thanks!

## Any questions?

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